

## Product datasheet for **TA500471S**

### MEK2 (MAP2K2) Mouse Monoclonal Antibody [Clone ID: OTI8G6]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI8G6
Applications:	FC, IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:150, FLOW 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full-length protein expressed in 293T cell transfected with human MAP2K2 expression vector
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	44.4 kDa
Gene Name:	mitogen-activated protein kinase kinase 2
Database Link:	<a href="#">NP_109587</a> <a href="#">Entrez Gene 26396 Mouse</a> <a href="#">Entrez Gene 58960 Rat</a> <a href="#">Entrez Gene 5605 Human</a> <a href="#">P36507</a>



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**Background:**

The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is known to play a critical role in mitogen growth factor signal transduction. It phosphorylates and thus activates MAPK1/ERK2 and MAPK2/ERK3. The activation of this kinase itself is dependent on the Ser/Thr phosphorylation by MAP kinase kinases. Mutations in this gene cause cardiofaciocutaneous syndrome (CFC syndrome), a disease characterized by heart defects, mental retardation, and distinctive facial features similar to those found in Noonan syndrome. The inhibition or degradation of this kinase is also found to be involved in the pathogenesis of Yersinia and anthrax. A pseudogene, which is located on chromosome 7, has been identified for this gene.

**Synonyms:**

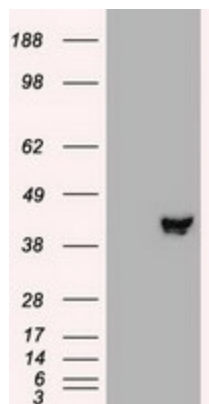
CFC4; MAPKK2; MEK2; MKK2; PRKMK2

**Protein Families:**

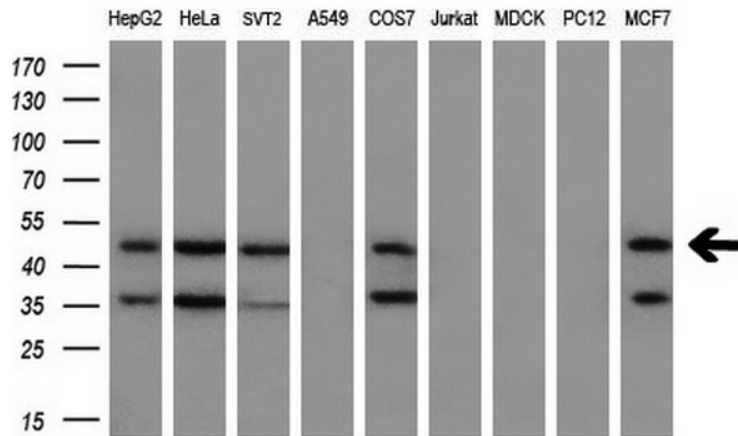
Druggable Genome, Protein Kinase

**Protein Pathways:**

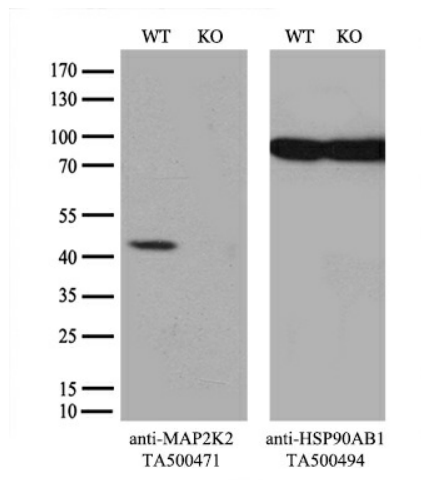
Acute myeloid leukemia, B cell receptor signaling pathway, Bladder cancer, Chronic myeloid leukemia, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Gap junction, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Melanoma, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pathways in cancer, Prion diseases, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, Thyroid cancer, Toll-like receptor signaling pathway, Vascular smooth muscle contraction, VEGF signaling pathway

**Product images:**

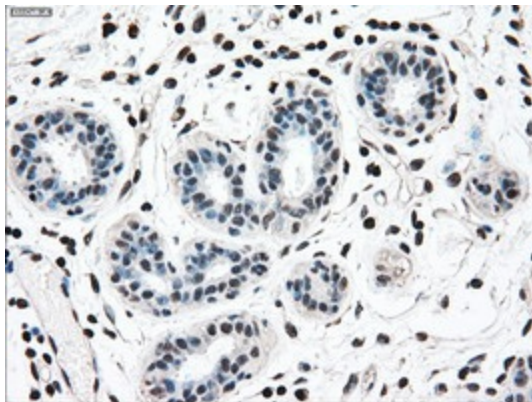
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MAP2K2 (Cat# [RC201827], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MAP2K2 (Cat# [TA500471]). Positive lysates [LY403069] (100ug) and [LC403069] (20ug) can be purchased separately from OriGene.



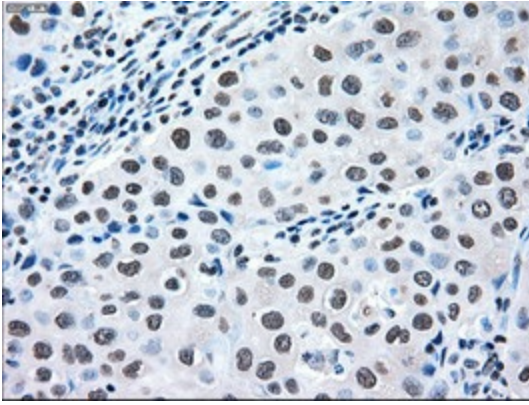
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-MAP2K2 monoclonal antibody (HepG2: human; HeLa: human; SVT2: mouse; A549: human; COS7: monkey; Jurkat: human; MDCK: canine; PC12: rat; MCF7: human) (1:200).



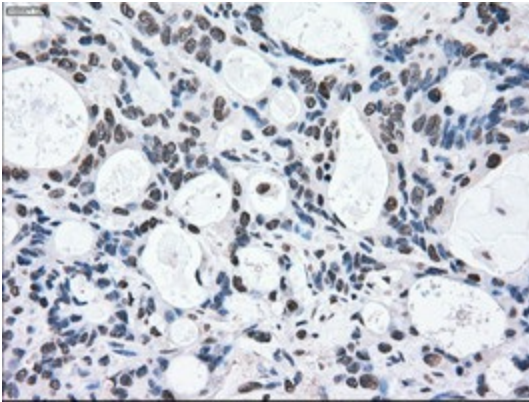
Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT, Cat# LC810293T) and MAP2K2-Knockout 293T cells (KO, Cat# [LC810498]) were separated by SDS-PAGE and immunoblotted with anti-MAP2K2 monoclonal antibody [TA500471], (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([TA500494]) as a loading control.



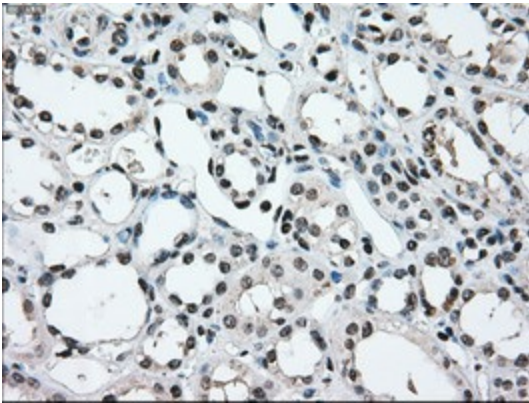
Immunohistochemical staining of paraffin-embedded Human breast tissue within the normal limits using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



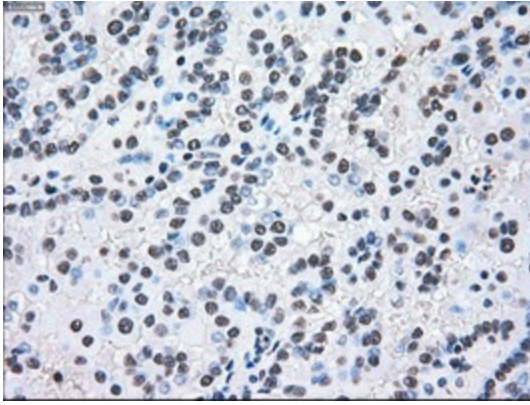
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



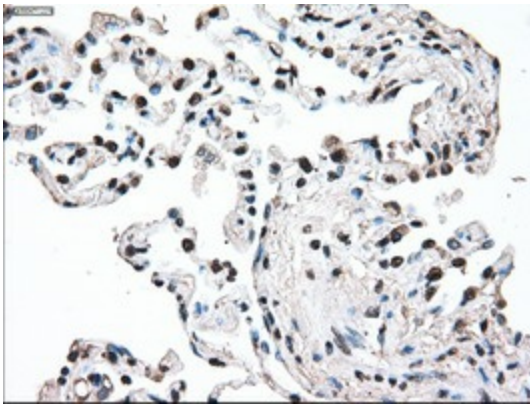
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human colon tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



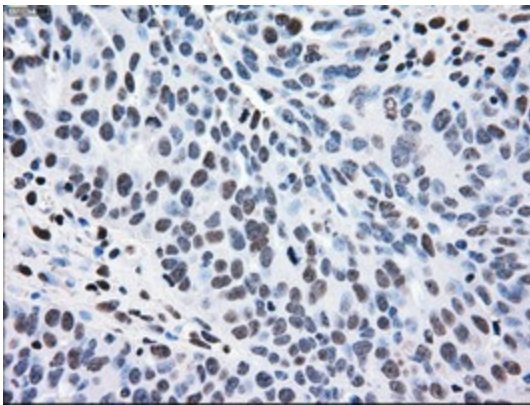
Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



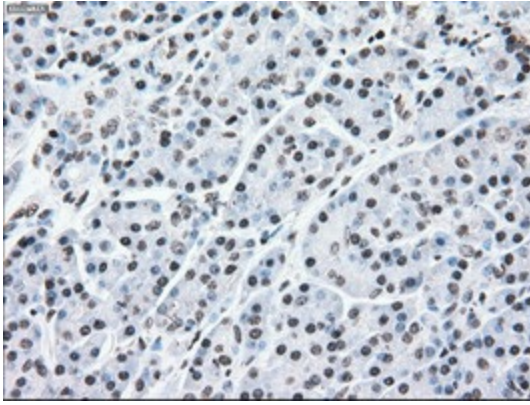
Immunohistochemical staining of paraffin-embedded Carcinoma of Human kidney tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



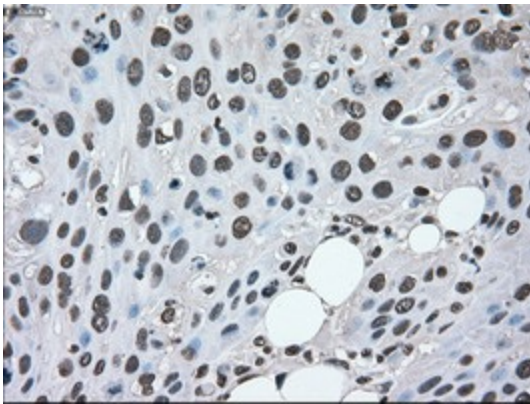
Immunohistochemical staining of paraffin-embedded Human lung tissue within the normal limits using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



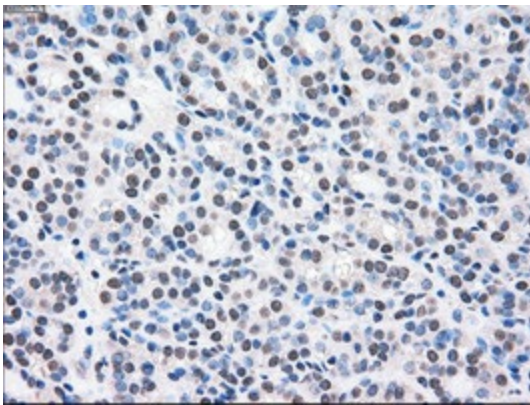
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



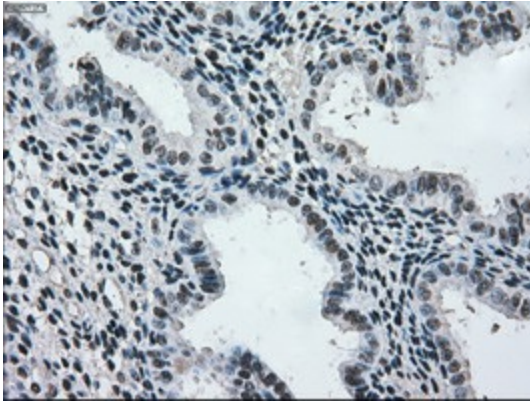
Immunohistochemical staining of paraffin-embedded Human pancreas tissue within the normal limits using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



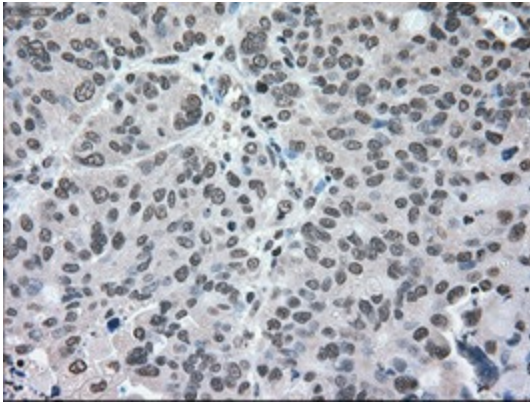
Immunohistochemical staining of paraffin-embedded Carcinoma of Human pancreas tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



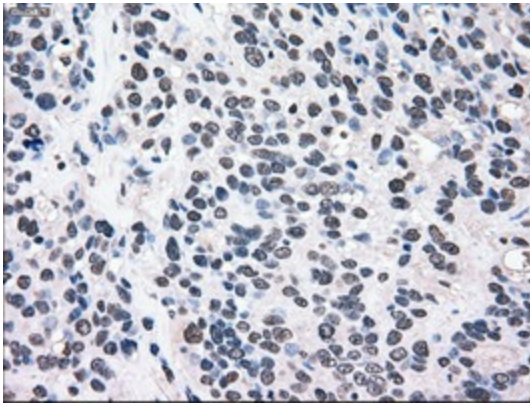
Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



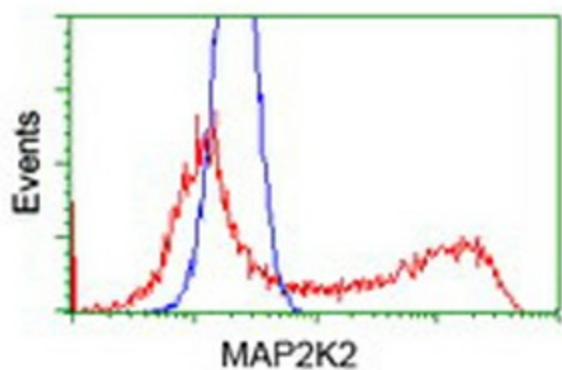
Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human endometrium tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



Immunohistochemical staining of paraffin-embedded Carcinoma of Human bladder tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500471])



HEK293T cells transfected with either [RC201827] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-MAP2K2 antibody ([TA500471]), and then analyzed by flow cytometry.